

IN THE SPECIFICATION

At page 4, please replace paragraph [0020] with the following amended paragraph:

[0020] The amount of heat generated in core 22 is regulated by inserting and withdrawing control rods 54 of neutron absorbing material, such as for example, hafnium. To the extent that control rod 54 is inserted into fuel bundle 46, it absorbs neutrons that would otherwise be available to promote the chain reaction which generates heat in core 22. Control rod ~~guide tubes 56~~ guide tubes (not shown) maintain the vertical motion of control rods 54 during insertion and withdrawal. Control rod drive mechanism 7 is located within shroud 20 below core 22. Fuel bundles 46 are aligned by a core plate 60 located at the base of core 22. Core plate 60 is supported by core support beams which are attached to shroud 20.

At page 5, please replace paragraph [0023] with the following amended paragraph:

[0023] Other control rod drive candidates include replacing the electric motor with a hydraulic drive (water turbine) and revising it as necessary to operate as an internal drive. In an alternative embodiment, a canned motor and all necessary power and control signals are transferred through ~~reactor vessel 12~~ reactor pressure vessel 5 without contact by using coil type electronic couplings.

At page 6, please replace paragraph [0026] with the following amended paragraph:

[0026] Core support plates 100 are individually located, supported, and fixed in position by grooves 122, 124, 126 and 128 in bottom surface 104 which receive corresponding core support beams 150. In one embodiment, ~~core support beams 100~~ core support beams 150 have mating grooves or ~~protrusions (not shown)~~ protrusions 164 machined into the ~~core support beams 100~~ core support beams 150 after the core support beam structure has been welded together and heat treated. ~~Protrusions~~ Protrusions 164 extend along a length of a core support beam 150 and are receivable within matching grooves 122, 124, 126, and 128 of core support plate 100. Opening 142 of intersection portion 140

allows intersecting ~~core support beams~~ core support beams 150 disposed in grooves 120 to extend beyond core support plate 100. The interlocking of ~~grooves~~ grooves 120 and core support beams 150 provide accurate and secure lateral spacing of core support plates 100 within support ring 152. Figure 5 illustrates at least one removable core support plate 100 and a plurality of core support beams 150 (shown in Figure 4) forming a core support 166 for core 22 of reactor 5.

At page 7, please replace paragraph [0030] with the following amended paragraph:

[0030] The cruciform shaped ~~guide tube 112~~ guide tubes 56 and associated control rod drive mechanism 7 can be removed from the core region in the same manner as the control rods 54 once the necessary fuel assemblies, support blocks 170, and core support plates 100 have been removed. The fuel assemblies, fuel support blocks 170, and core support plates 100 can be removed above core 22 to allow the control rod drive mechanism 7 to also be removed above core 22 and replaced when necessary.